

What is claimed is:

1. A toner for developing latent electrostatic images, produced by a process comprising the steps of:
dissolving or dispersing each component of a composition in an organic solvent to form a solution or dispersion, the composition comprising a resin reactive with a compound having an active hydrogen group, a releasing agent, and a graft polymer C of a polyolefin resin A on which a vinyl resin B has been at least partially grafted;

dispersing the solution or dispersion in an aqueous medium during at least one of elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group thereby forming a reacted dispersion;

removing the organic solvent after or during at least one of the elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group; and

washing and drying particles formed by removing the organic solvent.

2. A toner for developing latent electrostatic images according to Claim 1, wherein the composition

further comprises a coloring agent.

3. A toner for developing latent electrostatic images according to Claim 1, wherein the composition further comprises a compound having an active hydrogen group.

4. A toner for developing latent electrostatic images according to Claim 1, wherein the process further comprises the step of adding a compound having an active hydrogen group during the step of dispersing the solution or dispersion in the aqueous medium.

5. A toner for developing latent electrostatic images according to Claim 1, wherein the polyolefin resin A has a softening point of from 80°C to 140°C.

6. A toner for developing latent electrostatic images according to Claim 1, wherein the polyolefin resin A comprises at least one monomer unit selected from the group consisting of ethylene, propylene, 1-butene, isobutylene, 1-hexene, 1-dodecene and 1-octadecene.

7. A toner for developing latent electrostatic images according to Claim 1, wherein the polyolefin resin

A has a number average molecular weight of from 500 to 20,000 and a weight average molecular weight of from 800 to 100,000:

8. A toner for developing latent electrostatic images according to Claim 1, wherein the vinyl resin B has a solubility parameter SP of from 10.0 to 12.6.

9. A toner for developing latent electrostatic images according to Claim 1, wherein the amount of the graft polymer C is from 10 to 500 parts by weight relative to 100 parts by weight of the releasing agent.

10. A toner for developing latent electrostatic images according to Claim 1, wherein the vinyl resin B comprises one of:

styrene;

a combination of styrene and an alkyl ester of acrylic acid;

a combination of styrene and an alkyl ester of methacrylic acid;

a combination of styrene and acrylonitrile;

a combination of styrene and methacrylonitrile;

a combination of styrene, an alkyl ester of acrylic acid and acrylonitrile;

a combination of styrene, an alkyl ester of acrylic acid and methacrylonitorile;

a combination of styrene, an alkyl ester of methacrylic acid and acrylonitorile; and

a combination of styrene, an alkyl ester of methacrylic acid and methacrylonitorile.

11. A toner for developing latent electrostatic images according to Claim 1, wherein the releasing agent comprises at least one selected from the group consisting of a carnauba wax free of nonesterified fatty acid, a rice wax, a montan wax and an ester wax.

12. A toner for developing latent electrostatic images according to Claim 1, wherein the toner particles have an elliptic shape.

13. A toner for developing latent electrostatic images according to Claim 1, wherein the toner particles have an elliptic shape having a major axis r_1 , a minor axis r_2 and a thickness r_3 , wherein the ratio (r_2/r_1) of the minor axis r_2 to the major axis r_1 is from 0.5 to 0.8, and the ratio (r_3/r_2) of the thickness r_3 to the minor axis r_2 is from 0.7 to 1.0.

14. A toner for developing latent electrostatic images according to Claim 1, wherein the resin reactive with a compound having an active hydrogen group, comprises a polyester prepolymer having an isocyanate group, and the compound having an active hydrogen group comprises one of an amine and a derivative thereof.

15. A toner for developing latent electrostatic images according to Claim 1, wherein the aqueous medium comprises at least one of inorganic dispersing agents and fine polymer particles.

16. A two-component developer for developing latent electrostatic images, comprising a carrier and a toner,

wherein the toner is produced by a process comprising the steps of:

dissolving or dispersing each component of a composition in an organic solvent to form a solution or dispersion, the composition comprising a resin reactive with a compound having an active hydrogen group, a releasing agent, and a graft polymer C of a polyolefin resin A on which a vinyl resin B has been at least partially grafted;

dispersing the solution or dispersion in an aqueous

medium during at least one of elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group thereby forming a reacted dispersion;

removing the organic solvent after or during at least one of the elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group; and

washing and drying particles formed by removing the organic solvent.

17. An image forming apparatus comprising:

a photoconductor;

a charger for charging the photoconductor;

an exposer for exposing the photoconductor to light to form a latent electrostatic image;

a developing unit containing a toner and serving for developing the latent electrostatic image using the toner to form a toner image;

a transferring unit for transferring the toner image from the photoconductor to a transfer material; and

an image fixing unit comprising two rollers for allowing the toner image on the transfer material to pass through between the two rollers to heat and fuse the toner to thereby fix the toner image,

wherein the image forming apparatus is so configured as to perform the image fixing at a contact pressure (roller load divided by contact area) between the two rollers of 1.5×10^5 Pa or less, and

wherein the toner is produced by a process comprising the steps of:

dissolving or dispersing each component of a composition in an organic solvent to form a solution or dispersion, the composition comprising a resin reactive with a compound having an active hydrogen group, a releasing agent, and a graft polymer C of a polyolefin resin A on which a vinyl resin B has been at least partially grafted;

dispersing the solution or dispersion in an aqueous medium during at least one of elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group thereby forming a reacted dispersion;

removing the organic solvent after or during at least one of the elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group; and

washing and drying particles formed by removing the organic solvent.

18. An image forming apparatus according to Claim 17, wherein the image fixing unit comprises:
a heater having a heating element;
a film in contact with the heater; and
a pressurizing member in intimate contact with the heater with the interposition of the film,
wherein the image fixing means is so configured as to allow a recording medium bearing an unfixed toner image to pass through between the film and the pressurizing member to heat and fuse the toner to thereby fix the toner image.

19. An image forming apparatus according to Claim 17, wherein the photoconductor is an amorphous silicon photoconductor.

20. An image forming apparatus according to Claim 17, wherein the developing unit has an alternating electric field applying unit for applying an alternating electric field upon development of the latent electrostatic image on the photoconductor.

21. An image forming apparatus according to Claim 17, wherein the charger comprises a charging member and the charger is so configured as to bring the

charging member into contact with the photoconductor and apply a voltage to the charging member to thereby charge the photoconductor.

22. A process cartridge, integrally comprising:
a photoconductor; and
at least one means selected from the group
consisting of:
a charger for charging the photoconductor;
a developing unit containing a toner and
serving for developing a latent electrostatic image using
the toner to form a toner image; and
a cleaner for cleaning a residual toner on the
photoconductor with a blade after transfer,
the process cartridge being detachable from and
attachable to a main body of an image forming apparatus,
wherein the toner produced by a process comprising
the steps of:
dissolving or dispersing each component of a
composition in an organic solvent to form a solution or
dispersion, the composition comprising a resin reactive
with a compound having an active hydrogen group, a
releasing agent, and a graft polymer C of a polyolefin resin
A on which a vinyl resin B has been at least partially
grafted;

dispersing the solution or dispersion in an aqueous medium during at least one of elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group thereby forming a reacted dispersion;

removing the organic solvent after or during at least one of the elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group; and

washing and drying particles formed by removing the organic solvent.

23. An image forming process, comprising the steps of:

charging a photoconductor;

exposing the photoconductor to light to form a latent electrostatic image;

developing the latent electrostatic image using a toner to form a toner image;

transferring the toner image from the photoconductor to a transfer material; and

cleaning a residual toner on the photoconductor with a blade after the transferring step,

wherein the toner produced by a process comprising the steps of:

dissolving or dispersing each component of a composition in an organic solvent to form a solution or dispersion, the composition comprising a resin reactive with a compound having an active hydrogen group, a releasing agent, and a graft polymer C of a polyolefin resin A on which a vinyl resin B has been at least partially grafted;

dispersing the solution or dispersion in an aqueous medium during at least one of elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group thereby forming a reacted dispersion;

removing the organic solvent after or during at least one of the elongation and crosslinking reactions of the resin reactive with a compound having an active hydrogen group; and

washing and drying particles formed by removing the organic solvent.